Listing of Claims

1. (cancelled)

2. (cancelled)

3. (currently amended) A method for arranging digital images on a page, comprising:

identifying a set of digital images;

identifying a pre-determined print size for each of the digital images in the set;

defining a packing area;

identifying a largest of the pre-determined print sizes;

if it will fit in the packing area, packing a digital image from the set having the identified largest pre-determined print size, a digital image in the a first orientation in the packing area in a first trial pack; and

if it will fit in the packing area, packing the digital image from the set having the identified largest pre-determined print size digital image in the a second orientation in the packing area in a second trial pack.

4. (currently amended) The method of Claim 3, further comprising: identifying a largest image size that will fit in the packing area; and wherein packing the digital image in the first orientation includes, if [[a]] the digital image from the set having the identified largest pre-determined print size of the identified size will fit in the first orientation, packing as many digital images from the set having the identified largest pre-determined print size of the identified size as possible in the packing area in the first trial pack; and

wherein packing the digital image in the second orientation includes, if [[a]] the digital image from the set having the identified largest pre-determined print size of the identified size will fit in the second orientation, packing as many digital

images from the set having the identified largest pre-determined print size ~~of the identified size~~ as possible in the second orientation in the second trial pack.

5. (currently amended) The method of Claim 4, wherein:

identifying a largest of the pre-determined print sizes, comprises identifying, from a set of digital images, a largest pre-determined ~~image~~ print size that will fit in the packing area; and

packing as many digital images of the identified largest pre-determined print size as possible comprises repeatedly packing digital images of the identified largest pre-determined print size in a given orientation until either another digital image of the identified largest pre-determined print size will not fit or no digital image of the identified largest pre-determined print size remains in the set.

6. (currently amended) A method for generating trial packs from a set of digital images, each digital image in the set having a pre-determined print size, the method comprising

opening a trial pack as an empty page;

continuing, if possible, each open trial pack and closing each trial pack that cannot be continued; and

repeating the ~~steps of~~ continuing and closing until no trial pack remains open;

wherein continuing, comprises, upon determining that at least one digital image from the set that has yet to be packed in the open trial pack will fit in the packing area:

identifying a largest pre-determined print size of a digital image remaining in the set that will fit in the packing area;

if it will fit, packing a digital image of the identified largest pre-determined print size in a first orientation and continuing the open trial pack as a first child trial pack; and

if it will fit, packing a digital image of the identified largest pre-determined print size in a second orientation and continuing the trial pack as a second child trial pack.

7. (cancelled)

8. (currently amended) The method of Claim [[7]] 6, wherein:

packing the identified digital image of the identified largest pre-determined print-size in the first orientation comprises packing as many digital images of the identified largest pre-determined print size as possible in the first orientation and continuing the open trial pack as a first child trial pack; and

packing the identified digital image of the identified largest pre-determined print-size in the second orientation comprises packing as many digital images of the identified largest pre-determined print size as possible in the second orientation and continuing the open trial pack as a second child trial pack.

9. (currently amended) The method of Claim 8, wherein packing as many digital images of the identified largest pre-determined print size as possible comprises repeatedly packing digital images of the identified largest pre-determined print size in a given orientation until either another digital image of the identified largest pre-determined print size will not fit or no digital image of the identified largest pre-determined print size remains in the set.

10. (currently amended) The method of Claim 6 7, wherein closing comprises, for each open trial pack, closing that pack if no digital image from the set that has yet to be packed in the open trial pack will fit in the packing area.

11. (currently amended) A method for arranging a set of digital images on a page, comprising:

selecting a set of digital image, each digital image in the set having a pre-determined print size;

~~generating trial packs for the selected set of digital images;~~

opening a trial pack as an empty page;

continuing, if possible, each open trial pack and closing each trial pack that cannot be continued; and

repeating the steps of continuing and closing until no trial pack remains open;

comparing the closed trial packs;

selecting a trial pack based upon the comparison; and

determining if any of the digital images from the set were not used in the selected trial pack, and if any digital images are determined to not be used, selecting the unused digital images as the set of digital images and repeating the ~~steps of generating,~~ opening, continuing, closing, comparing, selecting, and determining;

wherein continuing comprises defining a packing area and upon determining that at least one digital image from the set that has yet to be packed in the open trial pack will fit in the packing area:

identifying a largest pre-determined print size of a digital image remaining in the set that will fit in the packing area;

if it will fit, packing a digital image of the identified pre-determined print size in a first orientation and continuing the open trial pack as a first child trial pack; and

if it will fit, packing a digital image of the identified pre-determined print size in a second orientation and continuing the trial pack as a second child trial pack.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (currently amended) The method of Claim 11 ~~14~~, wherein:

packing the ~~identified~~ digital image of the identified largest pre-determined print size in the first orientation comprises packing as many digital images of the identified pre-determined print size as possible in the first orientation and continuing the open trial pack as a first child trial pack; and

packing the ~~identified~~ digital image of the identified largest pre-determined print size in the second orientation comprises packing as many digital images of the identified pre-determined print size as possible in the second orientation and continuing the open trial pack as a second child trial pack.

16. (currently amended) The method of Claim 15, wherein packing as many digital images of the identified pre-determined print size as possible comprises repeatedly packing digital images of the identified pre-determined print size in a given orientation until either another digital image of the identified pre-determined print size will not fit or no digital image of the identified pre-determined print size remains in the set.

17. (currently amended) The method of Claim 11 ~~14~~, wherein closing comprises, for each open trial pack, closing that pack if no digital image from the set that has yet to be packed in the open trial pack will fit in the packing area.

18. (currently amended) The method of Claim 11 ~~14~~, wherein defining a packing area comprises identifying a geometry of a packed space and defining a packing area according the geometry of the packed space.

19. (currently amended) The method of Claim 11 ~~14~~, wherein defining a packing area comprises identifying a packed space as rectangular, identifying left over spaces located diagonally, vertically, and horizontally relative to the packed space, combining the diagonal space with either the vertical space or the horizontal space creating a combined space having a maximized small

dimension, and defining a first packing area as the combined space and defining a second packing area as the remaining horizontal or vertical space.

20. (currently amended) The method of Claim 11 ~~14~~, wherein identifying a packing area comprises identifying a packed space as irregular, maximizing a jagged space, identifying remaining spaces that are located vertically and horizontally relative to the packed space, defining a first packing area as the maximized jagged space, defining a second packing area as the left over vertical space, and defining a third packing are as the left over horizontal space.

21. (cancelled)

22. (cancelled)

23. (currently amended) A computer readable medium having instructions for:

identifying a set of digital images;

identifying a pre-determined print size for each of the digital images in the set;

defining a packing area;

identifying a largest of the pre-determined print sizes;

if it will fit in the packing area, packing a digital image from the set having the identified largest pre-determined print size, a digital image in the a first orientation in the packing area in a first trial pack; and

if it will fit in the packing area, packing the digital image from the set having the identified largest pre-determined print size digital image in the a second orientation in the packing area in a second trial pack.

24. (currently amended) The medium of Claim 23, having further instruction for:

identifying a largest image size that will fit in the packing area; and

wherein the instructions for packing the digital image in the first orientation include instructions for, , if [[a]] the digital image from the set having the identified largest pre-determined print size ~~of the identified size~~ will fit in the first orientation, packing as many digital images from the set having the identified largest pre-determined print size ~~of the identified size~~ as possible in the packing area in the first trial pack; and

wherein the instructions for packing the digital image in the second orientation include instructions for, if [[a]] the digital image from the set having the identified largest pre-determined print size ~~of the identified size~~ will fit in the second orientation, packing as many digital images from the set having the identified largest pre-determined print size ~~of the identified size~~ as possible in the second orientation in the second trial pack.

25. (currently amended) The medium of Claim 24, wherein the instructions for:

identifying a largest of the pre-determined print sizes, comprises instructions for identifying, from a set of digital images, a largest pre-determined ~~image~~ print size that will fit in the packing area; and

packing as many digital images of the identified largest pre-determined print size as possible comprises instructions for repeatedly packing digital images of the identified largest pre-determined print size in a given orientation until either another digital image of the identified largest pre-determined print size will not fit or no digital image of the identified largest pre-determined print size remains in the set.

26. (currently amended) A computer readable medium having instructions for:

selecting a set of digital images, each digital image in the set having a pre-determined print size;

opening a trial pack as an empty page;

continuing, if possible, each open trial pack and closing each trial pack that cannot be continued; and

repeating the ~~steps of~~ continuing and closing until no trial pack remains open<u>;</u>

<u>wherein the instructions for continuing include instructions for, upon determining that at least one digital image from the set that has yet to be packed in the open trial pack will fit in the packing area:</u>

<u>identifying a largest pre-determined print size of a digital image remaining in the set that will fit in the packing area;</u>

<u>if it will fit, packing a digital image of the identified largest pre-determined print size in a first orientation and continuing the open trial pack as a first child trial pack; and</u>

<u>if it will fit, packing a digital image of the identified largest pre-determined print size in a second orientation and continuing the trial pack as a second child trial pack.</u>

27. (cancelled)

28. (currently amended) The medium of Claim <u>26</u> ~~27~~, wherein the instructions for:

packing the ~~identified~~ digital image <u>of the identified largest pre-determined print-size</u> in the first orientation include instructions for packing as many digital images of the identified <u>largest pre-determined print</u> size as possible in the first orientation and continuing the open trial pack as a first child trial pack; and

packing the ~~identified~~ digital image <u>of the identified largest pre-determined print-size</u> in the second orientation include instructions for packing as many digital images of the identified <u>largest pre-determined print</u> size as possible in the second orientation and continuing the open trial pack as a second child trial pack.

29. (currently amended) The medium of Claim 28, wherein the instructions for packing as many digital images of the identified <u>largest pre-</u>

determined print size as possible include instructions for repeatedly packing digital images of the identified largest pre-determined print size in a given orientation until either another digital image of the identified largest pre-determined print size will not fit or no digital image of the identified largest pre-determined print size remains in the set.

30. (currently amended) The medium of Claim 26 27, wherein the instructions for closing include instructions for, for each open trial pack, closing that pack if no digital image from the set that has yet to be packed in the open trial pack will fit in the packing area.

31. (currently amended) A computer readable medium having instructions for

selecting a set of digital image, each digital image in the set having a pre-determined print size;

generating trial packs for the selected set of digital images;

opening a trial pack as an empty page;

continuing, if possible, each open trial pack and closing each trial pack that cannot be continued; and

repeating the steps of continuing and closing until no trial pack remains open;

comparing the closed trial packs;

selecting a trial pack based upon the comparison; and

determining if any of the digital images from the set were not used in the selected trial pack, and if any digital images are determined to not be used, selecting the unused digital images as the set of digital images and repeating the steps of generating, opening, continuing, closing, comparing, selecting, and determining;

wherein the instructions for continuing include instructions for defining a packing area and upon determining that at least one digital image from the set that has yet to be packed in the open trial pack will fit in the packing area:

identifying a largest pre-determined print size of a digital image remaining in the set that will fit in the packing area;

if it will fit, packing a digital image of the identified pre-determined print size in a first orientation and continuing the open trial pack as a first child trial pack; and

if it will fit, packing a digital image of the identified pre-determined print size in a second orientation and continuing the trial pack as a second child trial pack.

32. (cancelled)

33. (cancelled)

34. (cancelled)

35. (currently amended) The medium of Claim 31 34, wherein:

the instructions for packing the ~~identified~~ digital image of the identified largest pre-determined print size in the first orientation include instructions for packing as many digital images of the identified pre-determined print size as possible in the first orientation and continuing the open trial pack as a first child trial pack; and

the instructions for packing the ~~identified~~ digital image of the identified largest pre-determined print size in the second orientation include instructions for packing as many digital images of the identified pre-determined print size as possible in the second orientation and continuing the open trial pack as a second child trial pack.

36. (currently amended) The medium of Claim 35, wherein the instructions for packing as many digital images of the identified pre-determined print size as possible include instructions for repeatedly packing digital images of the identified pre-determined print size in a given orientation until either another

digital image of the identified <u>pre-determined print</u> size will not fit or no digital image of the identified <u>pre-determined print</u> size remains in the set.

37. (currently amended) The medium of Claim <u>31</u> 34, wherein the instructions for closing include instructions for, for each open trial pack, closing that pack if no digital image from the set that has yet to be packed in the open trial pack will fit in the packing area.

38. (currently amended) The medium of Claim <u>31</u> 34, wherein the instructions for defining a packing area include instructions for identifying a geometry of a packed space and defining a packing area according the geometry of the packed space.

39. (currently amended) The medium of Claim <u>31</u> 34, wherein the instructions for defining a packing area include instructions for identifying a packed space as rectangular, identifying left over spaces located diagonally, vertically, and horizontally relative to the packed space, combining the diagonal space with either the vertical space or the horizontal space creating a combined space a maximized small dimension, and defining a first packing area as the combined space and defining a second packing area as the remaining horizontal or vertical space.

40. (currently amended) The medium of Claim <u>31</u> 34, wherein the instructions for defining a packing area include instructions for identifying a packed space as irregular, maximizing a jagged space, identifying remaining spaces that are located vertically and horizontally relative to the packed space, defining a first packing area as the maximized jagged space, defining a second packing area as the left over vertical space, and defining a third packing are as the left over horizontal space.

41. (cancelled)

42. (cancelled)

43. (currently amended) A system for arranging a set of digital images, comprising: a trial pack generator and a pack selector, wherein:

a trial the pack generator operable to generate trial packs for the set of digital images; is operable to:

define packing areas;

to open a trial pack as an empty page

using a defined packing areas, to repeatedly continue, if possible, each open trial pack and to close each open trial pack that cannot be continued until no trial pack remains open;

wherein the pack generator is operable to continue each open trial pack by identifying from the set a largest pre-determined print size of a digital image remaining in the set that will fit in a packing area, if it will fit, packing a digital image of the identified largest pre-determined print size in a first orientation in an packing area and continuing the open trial pack as a first child trial pack, and, if it will fit, packing a digital image of the identified largest pre-determined print size in a second orientation and continuing the trial pack as a second child trial pack;

the [[a]] pack selector is operable to compare generated closed trial packs generated by the trial pack generator, to select a trial pack based upon the comparison; and, until all digital image from the set are used in one of one or more selected trial packs, to direct the trial pack generator to generate new trial packs for any digital images not used in a selected trial pack.

44. (cancelled)

45. (cancelled)

46. (currently amended) The system of Claim 43 [[44]], wherein the packager is operable to, for each open trial pack, close that trial pack if no digital image from the set that has yet to be packed in the open trial pack will fit in the packing area.

47. (cancelled)

48. (cancelled)